## COMPUTER SCIENCE - CSC

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<th>Course Code</th>
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<td>CSC 108</td>
<td>Introduction to Web Computing</td>
<td>3 Credits</td>
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<td>CSC 111</td>
<td>Introduction to Programming</td>
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<td>CSC 112</td>
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<td>CSC 253</td>
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<td>CSC 310</td>
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<td>CSC 311</td>
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<td>CSC 320</td>
<td>The Social Impact of Computing</td>
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<td>CSC 330</td>
<td>Distributed Computing</td>
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<td>CSC 351</td>
<td>Comparative Programming Languages</td>
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### Description
- **CSC 108**: Introduction to computer science through web sites, web pages, web page programming, HTML, XML, CSS and JavaScript. The history and social impact of computers, networks and the World Wide Web are included in the course. **Corequisite**: CSC 108L. **Fulfills College Core**: Ethics, Field 7 (Mathematical Sciences) **Offered**: fall & spring.

- **CSC 111**: Algorithms, programming, computers, and applications to problem solving in Python. **Corequisite**: CSC 111L. **Fulfills College Core**: Field 7 (Mathematical Sciences) **Offered**: every fall, spring, & summer.

- **CSC 112**: Basic concepts of object-oriented programming, recursion, and data structures, including lists, stacks, queues, and trees using Python. **Prerequisite**: minimum grade of C in CSC 111 & CSC 111L. **Corequisite**: CSC 112L. **Offered**: every fall, spring, & summer.

- **CSC 213**: Introduction to the design, implementation, and testing of larger software systems. **Prerequisite**: minimum grade of C in CSC 112 & CSC 112L. **Corequisite**: CSC 213L. **Offered**: once a year.

- **CSC 253**: Introduction to digital logic, Boolean algebra, hardware and computer organization. **Prerequisite**: minimum grade of C in CSC 111 & CSC 111L. **Corequisite**: CSC 253L. **Offered**: once a year.

- **CSC 281**: Turing Machines and the Halting Problem. Provides an introduction to the design and analysis of algorithms, including classes of problems and methods for analysis. **Prerequisite**: minimum grade of C in CSC 112 & CSC 112L. **Corequisite**: CSC 281L. **Offered**: every spring.

- **CSC 310**: Examines the societal issues involved in computing such as accessibility, ethical issues, privacy, censorship, social media, and professional responsibilities. Includes applications of information literacy techniques to the major. **Prerequisite**: minimum grade of C in CSC 112 & CSC 112L or minimum grade of C in CSC 213 & CSC 213L. **Corequisite**: CSC 310L. **Offered**: occasionally.

- **CSC 330**: The design of operating system software, distributed applications, client/server and other models, security issues, and parallel programming on a High Performance Computing Cluster. **Prerequisite**: CSC 253, CSC 253L, & either minimum grade of C in CSC 112 & CSC 112L or minimum grade of C in CSC 213 & CSC 213L. **Corequisite**: CSC 330L. **Offered**: 2019-2020, 2021-2022.

- **CSC 351**: A study of programming languages and their implementations. Programming in logical and functional programming languages is included. **Prerequisite**: minimum grade of C in CSC 112 & CSC 112L or minimum grade of C in CSC 213 & CSC 213L. **Corequisite**: CSC 351L. **Offered**: 2020-2021, 2022-2023.
CSC 360 Intelligent Systems 3 Credits
An introduction to intelligent systems including logic and rule-based systems, machine learning, and applications of AI.
Prerequisite: completion of MAT 191 or MAT 230 and minimum grade of C in either CSC 112 & CSC 112L or CSC 213 & CSC 213L. Corequisite: CSC 360L.
CSC 360L Intelligent Systems Laboratory 1 Credit
Required lab for CSC 360.
Prerequisite: completion of MAT 191 or MAT 230 and minimum grade of C in either CSC 112 and 112L or in CSC 213 & CSC 213L. Corequisite: CSC 360.
Offered: occasionally.
CSC 371 Cybersecurity Principles 3 Credits
This course examines the landscape and the broad areas of cybersecurity which includes topics such as: Symmetric & Public-Key Encryption, Access Control, Database Security, Malware, DoS (Denial-of-Service) Attacks, Intrusion Detection & Firewalls, Software Security, Security Management & Policies, Internet Security, and Legal & Ethical Aspects of Cybercrime. Students will also complete hands-on labs and exercises to reinforce their working knowledge of computer, network and information security topics.
Prerequisite: CSC 310 and CSC 310L; may be taken concurrently.
Corequisite: CSC 371L.
Offered: every fall.
CSC 371L Cybersecurity Principles Lab 1 Credit
Required lab for CSC 371.
Prerequisite: CSC 310 and CSC 310L; may be taken concurrently.
Corequisite: CSC 371.
Offered: occasionally.
CSC 380 Web Development 3 Credits
Web design principles, programming and scripting (both client-side and server-side), client/server mechanisms, search engines, and security.
Prerequisite: minimum grade of C in CSC 111 & CSC 111L. Corequisite: CSC 380L.
CSC 380L Web Development Laboratory 1 Credit
Required lab for CSC 380.
Prerequisite: minimum grade of C in CSC 111 and 111L. Corequisite: CSC 380.
CSC 391 Computer Science Junior Seminar 1 Credit
Topic-focused exploration involving students and faculty.
Prerequisite: permission of instructor.
CSC 395 Software Engineering 3 Credits
An examination of a variety of techniques and concepts that have been created to improve the software production process. Includes discussions of software processes, Agile software development, requirements engineering, testing, and software evolution.
Prerequisite: minimum grade of C in CSC 213 & CSC 213L. Corequisite: CSC 395L.
CSC 395L Software Engineering Lab 1 Credit
Required lab for CSC 395.
Prerequisite: minimum grade of C in CSC 213 and 213L. Corequisite: CSC 395.
CSC 400 Special Topics in Computing 3 Credits
Current topics of interest to faculty and students. Possible topics: cryptography, advanced scripting languages, networking, etc.
Prerequisite: minimum grade of C in either CSC 112 & CSC 112L or in CSC 212 & CSC 212L and in either MAT 111, MAT 191 or MAT 230. Corequisite: CSC 400L. Restriction: must be junior or senior Computer Science major.